COMPUTED BY:	LMJ	DATE:	3/9/2022
CHECKED BY:	WKJ	DATE:	5/4/2022

NORTH CAROLINA DEPARTMENT OF TRANSPORTATION
DIVISION OF HIGHWAYS

PROJECT NO.	SHEET NO.
I-5987A	3D-20

Note: Invert Elevations indicated are for Bid Purposes only and shall not be used for project construction stakeout. See "Standard Specifications For Roads and Structures, Section 300-5".

LIST OF PIPES, ENDWALLS, ETC. (FOR PIPES 48 INCHES & UNDER)

LINE & STATION	OFFSET	STRUCTURE NUMBER FROM	STRUCTURE NUMBER TO	TOP ELEVATION FT.	INVERT ELEVATION FT.	INVERT ELEVATION FT.	MINIMUM REQUIRED SLOPE %	Side Drain Pipe (RCP, CSP, CAAP, HDPE, or PVC) SIZE 15	18	24	30	36	42	48	DO NOT USE RCP	DO NOT USE CSP	DO NOT USE CAAP	DO NOT USE HDPE
THICKNESS OR GAUGE																		
		2407	2408		151.10	150.80												
LA2 386+38	2 RT	2407		159.20														
		2411	2412		153.20	152.80												
LA2 381+30	2 RT	2411		157.20														
		2412	2302		152.80	151.80												
LA2 381+30	5 LT	2412		156.80														
		2413	2414		152.36	150.34		28										
LA2 382+12	74 LT	2413		156.36														
		2500	2501		157.86	156.75												
LA2 402+49		2500		161.88														
		2501	2502		156.80	156.50												
LA2 399+85	5 LT	2501		160.80														
		2502	2504		156.50	155.10	.3											
LA2 399+85	2 RT	2502		160.50														
		2503	2504		155.70	155.60												
LA2 397+05	5 LT	2503		159.70														
		2504	2508		154.90	154.60												
LA2 397+05	2 RT	2504		159.70														
		2505	2506		155.60	155.60												
LA2 396+23	5 LT	2505		159.70														
		2506	2508		155.60	155.40												
LA2 396+23	2 RT	2506		159.70														
		2507	2508		155.60	155.60												
LA2 396+59	5 LT	2507		159.70														
		2508	2509		154.60	152.40	.7											
LA2 396+59	2 RT	2508		159.60														
LA2 403+84	CL																	
		2511	2512		152.10	151.60												
LA2 405+84	105 LT	2511		155.10														
		2512	2513		151.60	151.60												
LA2 405+84	5 LT	2512		163.30														
		2513	2514		151.60	151.10												
LA2 405+84	2 RT	2513		162.60														
LA2 405+84	107 RT	2514		155.00														
		2601	2602		159.30	159.10												
LA2 414+50	5 LT	2601		163.30														
		2602	2603		159.10	153.40												
LA2 414+50	2 RT	2602		163.10														
		2606	2607		158.80	158.60												
LA2 416+11	5 LT	2606		162.80														
		2607	2608		158.60	158.50												
LA2 416+53	5 LT	2607		162.80														
		2608	2611		158.50	158.40												
LA2 416+83	5 LT	2608		162.80														
		2609	2611		158.50	158.30												
LA2 416+41	2 RT	2609		162.50														
		2610	2611		158.50	158.30												
LA2 417+25	2 RT	2610		162.50														
		2611	2612		158.30	154.00												
LA2 416+83	2 RT	2611		162.50														
				SHEET TOTAL				28										

LINE & STATION	C. S. PIPE SIZE 15	18	24	30	36	42	48	R. C. PIPE CLASS III SIZE 15	18	24	30	36	42	48	R. C. PIPE CLASS IV SIZE 15	18	24	30	36	42	48
THICKNESS OR GAUGE	0.064	0.064	0.064	0.079	0.079	0.109	0.109														
LA2 386+38																					
															8						
LA2 381+30																					
															204						
LA2 381+30																					
LA2 382+12																					
															260						
LA2 402+49																					
															8						
LA2 399+85																					
															280						
LA2 399+85																					
															8						
LA2 397+05																					
																44					
LA2 397+05																					
															8						
LA2 396+23																					
															36						
LA2 396+23																					
															8						
LA2 396+59																					
LA2 396+59																					
LA2 403+84																					
LA2 405+84																					
												8									
LA2 405+84																					
LA2 405+84																					
LA2 405+84																					
															8						
LA2 414+50																					
LA2 414+50																					
															40						
LA2 416+11																					
															28						
LA2 416+53																					
															8						
LA2 416+83																					
															40						
LA2 416+41																					
															40						
LA2 417+25																					
LA2 416+83																					
SHEET TOTAL												8			984	44					

LINE & STATION	16" WELDED STEEL PIPE 0.25" THICK, GRADE B IN SOIL	18" WELDED STEEL PIPE 0.25" THICK, GRADE B IN SOIL	24" WELDED STEEL PIPE 0.50" THICK, GRADE B IN SOIL	30" WELDED STEEL PIPE 0.50" THICK, GRADE B IN SOIL	36" WELDED STEEL PIPE 0.50" THICK, GRADE B IN SOIL	42" WELDED STEEL PIPE 0.625" THICK, GRADE B IN SOIL	48" WELDED STEEL PIPE 0.625" THICK, GRADE B IN SOIL	16" WELDED STEEL PIPE 0.25" THICK, GRADE B NOT IN SOIL	18" WELDED STEEL PIPE 0.25" THICK, GRADE B NOT IN SOIL	24" WELDED STEEL PIPE 0.50" THICK, GRADE B NOT IN SOIL	30" WELDED STEEL PIPE 0.50" THICK, GRADE B NOT IN SOIL	36" WELDED STEEL PIPE 0.50" THICK, GRADE B NOT IN SOIL	42" WELDED STEEL PIPE 0.625" THICK, GRADE B NOT IN SOIL	48" WELDED STEEL PIPE 0.625" THICK, GRADE B NOT IN SOIL	ENDWALLS STD. 838.01 OR STD.838.11 (UNLESS OTHERWISE NOTED) CY	REINFORCED ENDWALLS CY	QUANTITIES FOR DRAINAGE STRUCTURES *TOTAL L.F. FOR PAY QUANTITY SHALL BE COL. 'A' + (1.3 X COL.'B') PER EACH (0' THRU 5.0')	LIN.FT. A 5.0' THRU 10.0'	LIN.FT. B 10.0' AND ABOVE	C.B. STD. 840.01 OR STD. 840.02	FRAME, GRATES, AND HOOD STANDARD 840.03 TYPE OF GRATE E	F	G	CONCRETE TRANSITIONAL SECTION D.I. STD. 852.04 OR STD. 852.06	C.B. STD. 852.05	D.I. STD. 840.14 OR STD. 840.15	D.I. FRAME AND GRATE STD. 840.16	G.D.I. TYPE "A" STD. 840.17 OR 840.26	G.D.I. TYPE "B" STD. 840.18 OR 840.27	G.D.I. TYPE "D" STD. 840.19 OR 840.28	G.D.I. (W.S. FLAT) FRAME W/ 2 GRATES STD. 840.20	G.D.I. (W.S. SAG) FRAME W/ 2 GRATES STD. 840.22	G.D.I. (N.S. SAG) FRAME W/ 2 GRATES STD. 840.24	J.B. STD. 840.31 OR 840.32	T.B.J.B. STD. 840.34	T.B.D.I. STD. 840.35	T.B.D.I. FOR STEEL GRATES STD. 840.36	STEEL FRAME AND TWO GRATES STD. 840.37	M.H. STD. 840.51, STD. 840.52, OR STD.53	M.H. FRAME AND COVER STD. 840.54	TEMP STEEL PLATE COVER MASONARY DRAINAGE	15" C.S. ELBOW	15" SIDE DRAIN PIPE ELBOW	FLOWABLE FILL, C.Y.	PIPE REMOVAL LIN. FT.	REMARKS
			52							52																																										
LA2 386+38																							1	3.1																												
LA2 381+30																							1																													
LA2 381+30																							1																													
LA2 382+12																							1																													
LA2 402+49																							1																													
LA2 399+85																							1																													
LA2 399+85																							1																													
LA2 397+05																							1																													
LA2 397+05																							1																													
LA2 396+23																							1																													
LA2 396+23																							1																													
LA2 396+59																							1																													
LA2 396+59																							1																													
LA2 403+84																																																					
LA2 405+84																																																					
LA2 405+84																							1	5.0	1.70																												
LA2 405+84																							1	5.0	1.00																												
LA2 405+84																																																					
LA2 414+50																							1																													
LA2 414+50																							1																													
LA2 416+11																							1																													
LA2 416+53																							1																													
LA2 416+83																							1																													
LA2 416+41																							1																													
LA2 417+25																							1																													
LA2 416+83																							1																													
SHEET TOTAL	108	52	52		104			108	52	52		104			7		23	13.1	3																							23	23						23.0	

ABBREVIATIONS

C.A.A - CORRUGATED ALUMINUM INLET
C.B - CATCH BASIN
C.S. - CORRUGATED STEEL
D.I. - DROP INLET
G.D.I. - GRATED DROP INLET
P.D.P.E. - HIGH DENSITY POLYETHYLENE
J.B. - JUNCTION BOX
M.H. - MANHOLE
N.S. - NARROW SLOT
P.V.C. - POLYVINYL CHLORIDE
R.C. - REINFORCED CONCRETE
T.B.D.I. - TRAFFIC BEARING DROP INLET
T.B.J.B. - TRAFFIC BEARING JUNCTION BOX
W.S. - WIDE SLOT